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October 11, 1993

Ms. Karen Vendl
U.S. Environmental Protection Agency
Region V
77 West Jackson Boulevard
HSRL-6J
Chicago, Illinois 60604

Mr. James Smith
Coordinator of Superfund Section
Indiana Department of Environmental Management
100 North Senate Avenue
Indiana Government Center North Rm. N. 1255
Indianapolis, Indiana 46204

RE: EnviroChem Superfund site
Revised Response Action and Tentative Schedules

Enclosed please find the Revised Response Action (RRA) Conceptual Plan and the associated schedule. As we discussed during our September 27, 1993 meeting, the RRA will be the conceptual basis for revising Exhibit A and the Consent Decree. The RRA and schedule have been modified to reflect your comments and those of Tom Krueger.

I will call you early next week to verify your concurrence. If you have any questions, please do not hesitate to call.

Very truly yours,

Roy O. Ball, Ph.D., P.E.
Trustee

Enclosure
ddw
cc: Norman W. Bernstein, Esq.
John J. Kyle, Esq.

ENVIRO-CHEM REVISED RESPONSE ACTION (RRA)
September 30, 1993

The RRA is shown on Figure 1. Differences in the selected response action, as described in Exhibit A to the Consent Decree, and the RRA are as follows:

1.0 CONCRETE PAD AND SUBSOIL EXCAVATION

The RRA includes excavation of the southern part of the site, including the concrete pad, aggregate and subsurface soils, to an average depth of about 8 feet below ground surface. Actual excavation depth may be greater or less than 8 feet and will be determined by reference to soil removal criteria. The soil removal criteria which will be similar to Indiana's UST practice, will be proposed to EPA and IDEM. All of the approximately 10,000 cubic yards of soil projected to be involved will be kept on site and shifted to the northern part of the site. The 3,500 cubic yards of concrete and aggregate materials also will be shifted to the northern portion of the site (or may be disposed of on or offsite.) The excavation will be backfilled to grade with clean fill.

Because of the condition of the saturated aggregated layer and subsoils beneath the concrete pad, the excavation will occur during the driest period practical and the southern portion of the site will be dewatered immediately prior to and during excavation. This water will either be treated onsite or it will be hauled to an offsite treatment facility. Approximately 250,000 gallons is anticipated (see item 5.0).

2.0 SOIL VAPOR EXTRACTION SYSTEM (SVES)

2.1 SVES Treatment Area

The RRA will employ SVE over the northern portion of the site but not the southern portion, because the concrete pad and subsoils from the southern part of the site will have been shifted for on site treatment to the northern part of the site. The excavation area will be backfilled with clean soils and will not require SVE.

The total site area inside of the remedial boundary is 3.1 acres. The concrete pad area referred to is approximately 0.75 acres. The area of SVE for the RRA is approximately 2.35 acres.

2.2 SVES Method

The SVES specification for air injection/extraction will be performance-based. The SVES system may use trenches, well points, or other means as proposed by the bidders. The basis for the performance specification will be the soil cleanup levels as contained in Exhibit A, Table 3-1 as amended.

3.0 VERTICAL BARRIER

The RRA includes a vertical barrier between the area of excavation and the area of SVE activity. The barrier would minimize the potential for migration of contaminated water and vapors between the two areas.

4.0 CAP

A cap as required by the Consent Decree, Exhibit A, will be placed over the SVE Area only, approximately 2.35 acres in the RAA. The clean backfill in the southern portion of the site negates any need for a cap in that area. The timing of the installation of the cap will be determined by the final plans and specifications as appropriate for the SVE system selected with EPA's approval. Depending on the system, the cap may be installed before or after installation of the SVE system.

5.0 WATER TREATMENT SYSTEM

The RRA includes an onsite treatment system and/or an offsite disposal for waters generated during construction and during operation of the remedial alternative. The volume is expected to be approximately 250,000 gallons during the excavation. The SVE area operations, decontamination and other miscellaneous site sources will also produce additional volumes. Influent flow rates are estimated to be an average of 1.5 gpm during operation of the SVE treatment system.

Any RRA onsite treatment process will be identified as part of the final design for the RRA. Based on preliminary analysis, the RAA onsite treatment process may include, among other things, equalization, solids removal, metals removal, and activated carbon adsorption. Storage of treated volumes or other storage may also be appropriate before onsite evaporation, onsite discharge or off site removal, depending on final designs.

6.0 MONITORING

Monitoring for the RRA is basically as specified in Exhibit A except that subsurface soil sampling would be reduced since sampling is not necessary in the area backfilled with clean fill.

Long-term monitoring proposed for the RRA includes three onsite till wells, four offsite till wells, four sand and gravel wells, and two surface water stations as indicated on Figure 1 (attached).

AWD 2259.880

10/7/93

Tentative Schedules

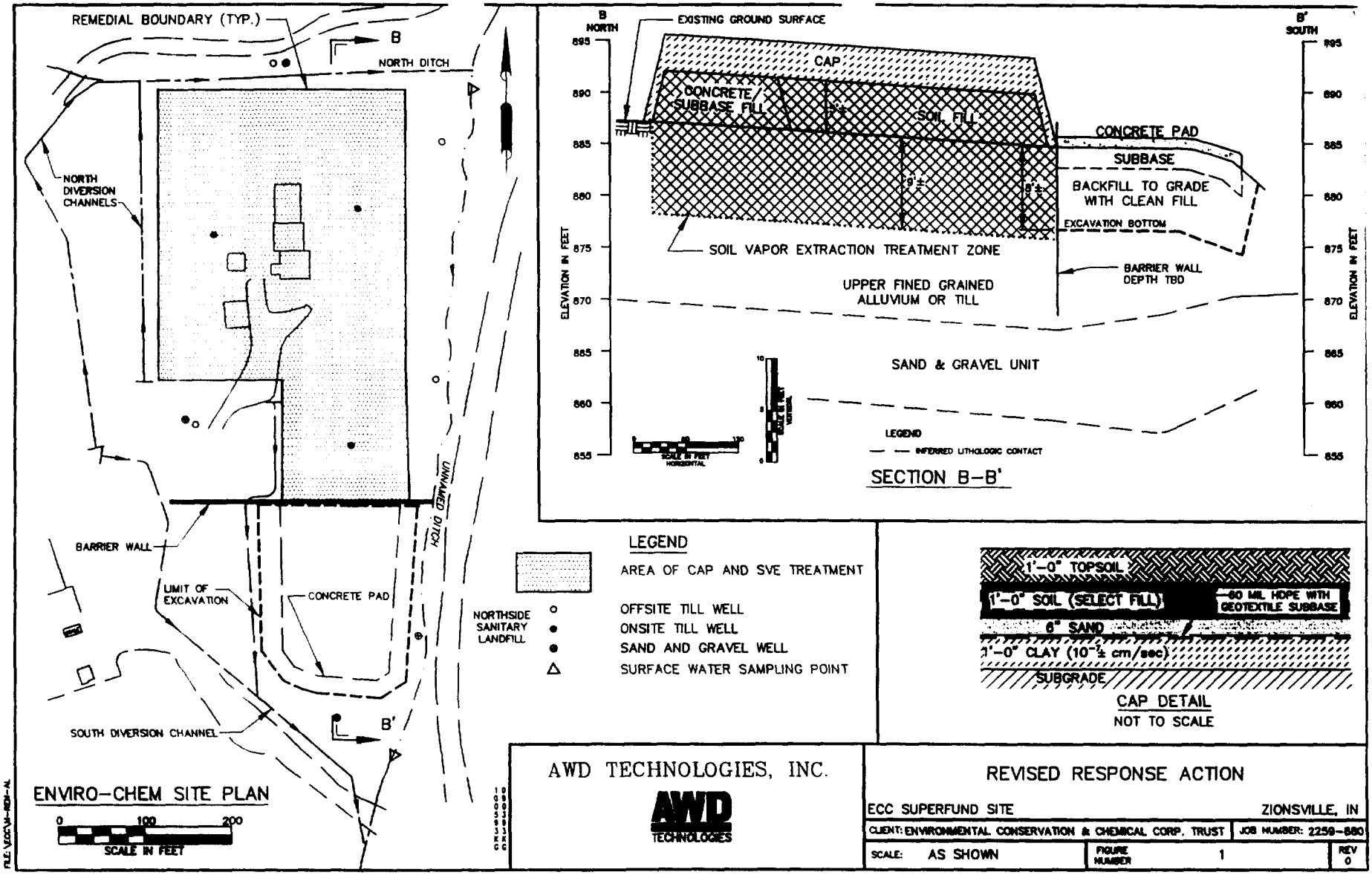
Date	ECC Revised Response Action ("RRA")	Exhibit A/Consent Decree and Revision	Drum Staging and Removal
October 15, 1993	Conceptual concurrence from State and EPA		
December 10, 1993	AWD draft plans & specs to Trustees		Draft plans and specs to Trustees
December 20, 1993	AWD draft plans & specs to EPA[1/]		AWD draft plans & specs to EPA
January 30, 1994			EPA comments to AWD
February 15, 1994	EPA comments to AWD	Begin work on revision to Exhibit "A"	AWD revisions to plans & specs to address EPA comments
March 1, 1994			EPA comments on revised plans and specs
March 15, 1994	AWD responses to EPA	Send draft revised Exhibit A and Consent Decree amendment language to EPA	AWD submit composite plans & specs to reflect all EPA comments
April 1, 1994	EPA review and comment to AWD on its responses		Final EPA approval of composite plans & specs
April 15, 1994		EPA comments on proposed revised Exhibit A and Consent Decree	Bid documents to contractors

[1/] All referenced submittals to EPA include submittals to IDEM.

Date	ECC Revised Response Action ("RRA")	Exhibit A/Consent Decree and Revision	Drum Staging and Removal
April 21, 1994	AWD revision of all documents to address EPA comments and submission of composite documents reflecting all EPA approved/requested revisions		
May 1, 1994		Submit revision of Exhibit A to EPA to address EPA's comments	Bidders conference
May 15, 1994		EPA approval of Exhibit A and Consent Decree amendments subject to ESD approval procedures.	Pre-qualifications submittals
May 21, 1994	EPA approval of the composite documents to be sent to prospective contractors		Announce short list of qualified contractors
June 1, 1994	Bid package to prospective contractors	EPA begin ESD process	Receive final bids
June 2, 1994			Award drum removal contract
June 15, 1994	Bidders' conference		
July 1, 1994	Receive pre-qualification submittals		Mobilization on site for drum removal
July 15, 1994	Announce short list of qualified bidders	Completion of EPA ESD procedures	

Date	ECC Revised Response Action ("RRA")	Exhibit A/Consent Decree and Revision	Drum Staging and Removal
August 1, 1994		Submission of revised Consent Decree including revised Exhibit A to Court for approval	
August 15, 1994	Receive final bid packages including vapor extraction system ("VES") design from short list bidders		
September 15, 1994	Preliminary award of contract (subject to EPA approval of VES design)		
October 1, 1994	Additional work by contractor on VES design		Complete the drum removal and demobilize at site
November 1, 1994	Submit VES design to EPA for second look		
December 15, 1994	Receive EPA comments from second look review		
January 30, 1995	Revise design to EPA to address EPA comments on VES design		
February 15, 1995	EPA additional comments on revised design document		
March 15, 1995	Composite design to EPA to reflect all approved/requested VES design changes		

Date	ECC Revised Response Action ("RRA")	Exhibit A/Consent Decree and Revision	Drum Staging and Removal
April 15, 1995	Final EPA approval of composite plans & specs for field use		
May 1, 1995	Mobilize at site to commence construction of the RRA		



AWD TECHNOLOGIES, INC.

AWD TECHNOLOGIES

REVISED RESPONSE ACTION

ECC SUPERFUND SITE — ZIONSVILLE, IN

CLIENT: ENVIRONMENTAL CONSERVATION & CHEMICAL CORP. TRUST — JOB NUMBER: 2259-680

SCALE: AS SHOWN	FIGURE NUMBER 1	REV 0